

#### **TECHNICAL DATA SHEET**

# Superalloy CX

#### **General notes:**

- » Ni-Cr-Mo superalloy
- » excellent strength from room temperature to 800 °C
- » very high shape retention
- » resistant to fatigue
- » fully non-magnetic (100%)
- » excellent corrosion resistance to most chemicals, salts and acids
- » typical applications include non-magnetic tools for electronic and watch industry applications and for laboratory and medical applications in aggressive chemical and extreme environments (aerospace, nuclear, marine)

## Mechanical properties

State	50% cold reduction	
Density	8.4 g/cm <sup>3</sup>	
Hardness Vickers	260 HV	
Tensile strength, ultimate	925 MPa	
Tensile strength, yield	485 MPa	
Elongation, break	50%	
Modulus of elasticity	208 GPa	

## Thermal properties

Coef. of lin. therm expansion	12.8 E-6/°C	25°C-100°C
Coef. of lin. therm expansion	13.4 E-6/°C	25°C-300°C
Specific heat capacity	0.41 J/(g·K)	
Thermal conductivity	10 W/(m·K)	
Continuos use temperature	600°C	
Max service temperature, air	980°C	

## **Electrical properties**

Resistivity 1.29 E-4 Ohm.cm

This document contains information based on average values a sobtained from the results of laboratory tests and observations made on the material. Ideal-tek SA declines all responsibility from an improper use of the product described in this document.